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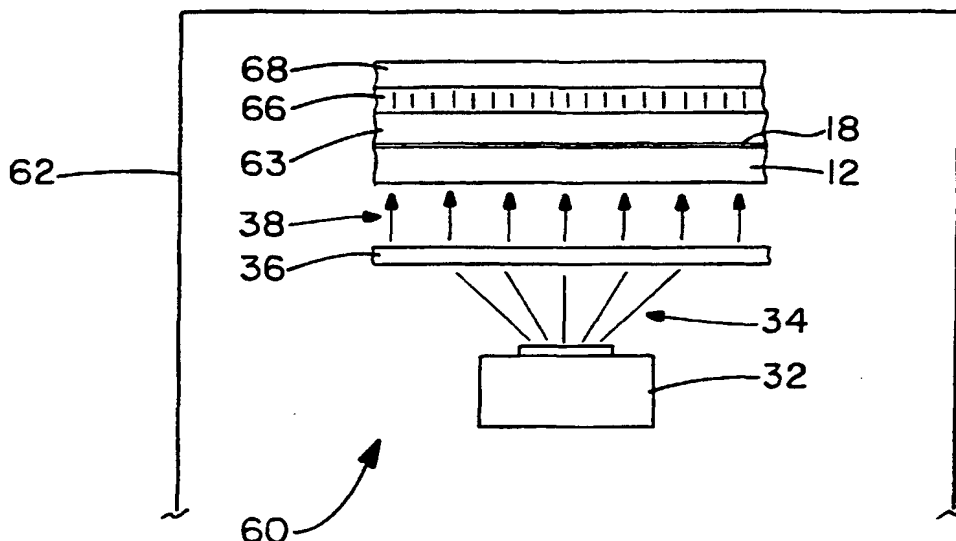
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(54) Title: FABRICATION OF ALIGNED LIQUID CRYSTAL CELL/FILM BY SIMULTANEOUS ALIGNMENT AND PHASE SEPARATION



(57) Abstract: A method for simultaneously fabricating a phase separated organic film and microstructures with liquid crystal having desired alignment is disclosed. The method includes the step of preparing a mixture of liquid crystal material, prepolymer, and polarization-sensitive material. The mixture is disposed on a substrate and a combination of UV or visible light or heat treatment is applied while simultaneously inducing phase separation so as to form a layer or microstructure of appropriately aligned liquid crystal material adjacent the substrate.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, INSPEC, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 11, 30 September 1999 (1999-09-30) & JP 11 153787 A (FUJI XEROX CO LTD), 8 June 1999 (1999-06-08) abstract	1-7, 13, 25
P, X	& US 6 083 575 A 4 July 2000 (2000-07-04) column 6, line 32 -column 7, line 21 ---	1, 25
A	NAZARENKO V G ET AL: "Oriented dispersion of liquid crystal droplets in a polymer matrix with light induced anisotropy" MOLECULAR MATERIALS, 1993, UK, vol. 2, no. 4, pages 295-299, XP000965024 ISSN: 1058-7276 page 295 -page 296 --- -/--	1, 25

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A	----- EP 0 568 355 A (SHARP KK) 3 November 1993 (1993-11-03) page 45, line 39 -page 48, line 31 page 49, line 38 -page 50, line 36	1, 7
A	----- PATENT ABSTRACTS OF JAPAN vol. 1996, no. 11, 29 November 1996 (1996-11-29) & JP 08 179286 A (CASIO COMPUT CO LTD), 12 July 1996 (1996-07-12) abstract	1, 25
A	----- JAIN S C ET AL: "A TECHNIQUE TO ALIGN LIQUID CRYSTALS BASED ON BULK-INDUCED PHOTO-POLYMERIZATION" MOLECULAR CRYSTALS AND LIQUID CRYSTALS SCIENCE AND TECHNOLOGY. SECTION A. MOLECULAR CRYSTALS AND LIQUID CRYSTALS, GORDON AND BREACH PUBLISHERS, CH, CH, vol. 288, 1996, pages 153-160, XP000965455 ISSN: 1058-725X Chapter: Alignment mechanism	19-23
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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>CORVAZIER L ET AL: "INDUCTION OF LIQUID CRYSTAL ORIENTATION THROUGH AZOBENZENE-CONTAINING POLYMER NETWORKS" MACROMOLECULES,US,AMERICAN CHEMICAL SOCIETY. EASTON, vol. 32, no. 10, 18 May 1999 (1999-05-18), pages 3195-3200, XP000978651 ISSN: 0024-9297 the whole document -----</p>	1, 19